

Form PTO-1449 (Modified)

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

05569.0004.DVUS11

Serial No.

New

Application

Applicant

McCafferty, J. *et al.*

Filing Date

3-18-04

Group

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

*Examiner Initials		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
	A1	4,593,002	06/03/86	Dulbecco	435	172.3	
	A2	4,816,397	03/28/89	Boss <i>et al.</i>	435	68	
	A3	4,946,778	08/07/90	Ladner <i>et al.</i>	435	69.6	
	A4	5,091,513	02/25/92	Huston <i>et al.</i>	530	387	
	A5	5,223,409	06/29/93	Ladner <i>et al.</i>	435	69.7	
	A6	5,403,484	04/04/95	Ladner <i>et al.</i>	435	235.1	
	A7	5,427,908	06/27/95	Dower <i>et al.</i>	435	5	
	A8	5,658,727	08/19/97	Barbas <i>et al.</i>	435	6	
	A9	5,688,666	11/18/97	Bass <i>et al.</i>	435	69.4	
	A10	5,750,373	05/12/98	Garrard <i>et al.</i>	435	69.4	
	A11	5,759,817	06/02/98	Barbas, C.	435	69.7	
	A12	5,770,356	06/23/98	Light <i>et al.</i>	435	5	
	A13	5,780,279	07/14/98	Matthews <i>et al.</i>	435	172.3	
	A14	5,821,047	10/13/98	Garrard <i>et al.</i>	435	5	
	A15	5,846,765	12/08/98	Matthew <i>et al.</i>	435	69.1	
	A16	5,849,500	12/15/98	Breitling <i>et al.</i>	435		
	A17	5,985,588	11/16/99	Breitling <i>et al.</i>	435	7.8	

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							Yes	No
	B1	WO 83/02393	07/21/83	WIPO				
	B2	EP 2 137 631	10/10/84	EP				
	B3	EP 0 168 933	01/22/86	EP				
	B4	WO 88/06630	09/07/88	WIPO				
	B5	WO 88/09344	12/01/88	WIPO				
	B6	EP 0 324 162 A1	12/24/88	EP				
	B7	AU-B-27617/88	07/06/89	AU				
	B8	WO 90/02809	03/22/90	WIPO				
	B9	WO 90/05144	05/17/90	WIPO				
	B10	WO 90/14424	11/29/90	WIPO				
	B11	WO 90/14430	11/29/90	WIPO				
	B12	WO 90/14443	11/29/90	WIPO				
	B13	WO 91/10737	07/25/91	WIPO				
	B14	WO 91/17271	11/14/91	WIPO				
	B15	WO 92/06204	04/16/92	WIPO				
	B16	WO 92/09690	06/11/92	WIPO				
	B17	WO 92/18619	10/29/92	WIPO				

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	C7	Better, M. <i>et al.</i> , "Escherichia coli Secretion of an Active Chimeric Antibody Fragment." <i>Science</i> , 240:1041-1043 (May, 1988).
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	C9	Bird, R.E. <i>et al.</i> , "Single chain antibody variable regions," <i>TIBTECH</i> , 9:132-137 (April, 1991).
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	C11	Boeke, J.D. <i>et al.</i> , "Effects of Bacteriophage f1 Gene III Protein on the Host Cell Membrane," <i>Mol. Gen. Genet.</i> , 186:185-192 (1982).
	C12	Boyle, W., "An Extension of the ⁵¹ Cr-Release Assay for the Estimation of Mouse Cytotoxins," <i>Transplantation</i> , 6(6):761-764 (1968).
	C13	Branden, C. <i>et al.</i> , in <i>Introduction to Protein Structure</i> , Garland Publishing, Inc., New York and London, pp.26-29 (1991).
	C14	Brenna, O. <i>et al.</i> , "Affinity-Chromatography Purification of Alkaline Phosphatase from Calf Intestine," <i>Biochem. J.</i> , 151:291-296 (1975).
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
	C16	Brownstone, A. <i>et al.</i> , "Chemical and Serological Studies with an Iodine-Containing Synthetic Immunological Determinant 4-Hydroxy-3-iodo-5-nitrophenylacetic Acid (NIP) and Related Compounds," <i>Immunology</i> , 10:465-479 (1966).
	C17	Carter, P. <i>et al.</i> , "Improved oligonucleotide site-directed mutagenesis using M13 vectors" <i>Nucl. Acids Res.</i> , 13(12):4431-4443 (1985).
	C18	Casali, P. <i>et al.</i> , "Human Monoclonals from Antigen-Specific Selection of B Lymphocytes and Transformation by EBV," <i>Science</i> , 234:476-479 (October, 1986).
	C19	Chaidaroglou, A. <i>et al.</i> , "Function of Arginine-166 in the Active Site of <i>Escherichia coli</i> Alakaline Phosphatase," <i>Biochemistry</i> , 27:8338-8343 (1988).
	C20	Chang, C. N. <i>et al.</i> , "Nuceotide sequence of the alkaline phosphatase gene of <i>Escherichia coli</i> ," <i>Gene</i> , 44:121-125 (1986).
	C21	Chaudhary, V.K. <i>et al.</i> , "A rapid method of cloning functional variable-region antibody genes in <i>Escherichia coli</i> as single-chain immunotoxins," <i>Proc. Natl. Acad. Sci., USA</i> , 87:1066-1070 (February, 1990).
	C22	Chiang, Y.L. <i>et al.</i> , "Direct cDNA Cloning of the Rearranged Immunoglobulin Variable Region," <i>BioTechniques</i> , 7(4):360-366 (1989).
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	C24	Choo, Y. <i>et al.</i> , "Selection of DNA binding sites for zinc fingers using rationally randomized DNA reveals coded interactions," <i>Proc. Natl. Acad. Sci., USA</i> , 91:11168-11172 (1994).
	C25	Choo Y. <i>et al.</i> , "Toward a code for the interactions of zinc fingers with DNA: Selection of randomized fingers displayed on phage," <i>Proc. Natl. Acad. Sci., USA</i> , 91:11163-11167 (1994).
	C26	Chothia, C. <i>et al.</i> , "Canonical Structures for the Hypervariable Regions of Immunoglobulins," <i>J. Mol. Biol.</i> , 196:901-917 (1987).
	C27	Chuchana, P. <i>et al.</i> , "Definition of the human immunoglobulin variable lambda (IGLV) gene subgroups," <i>Eur. J. Immunol.</i> , 20:1317-1325 (1990).
	C28	Clackson, T. <i>et al.</i> , "'Sticky feet'-directed mutagenesis and its applciation to swapping antibody domains," <i>Nucl. Acids Res.</i> , 17(24):10163-10170 (1989).

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
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	C30	Curti, B.D., "Physical Barriers to drug delivery in tumors," <i>Critical Reviews in Oncology/Hematology</i> , 14:29-39 (1993).
	C31	Cwirla, S.E. <i>et al.</i> , "Peptides on phage: A vast library of peptides for identifying ligands," <i>Proc. Natl. Acad. Sci., USA</i> , 87:6378-6382 (1990).
	C32	De Bellis, D. <i>et al.</i> , "Regulated expression of foreign genes fused to <i>lac</i> : control by glucose levels in growth medium," <i>Nucl. Acids Res.</i> , 18(5):1311 (1980).
	C33	De la Cruz <i>et al.</i> , "Immunogenicity and Epitope Mapping of Foreign Sequences via Genetically Engineered Filamentous Phage," <i>J. Biol. Chem.</i> , 263(9):4318-4322 (1988).
	C34	Dildrop, R., "A new classification of mouse V _H sequences," <i>Immunol. Today</i> , 5(4):85-86 (1984).
	C35	Dillman, R.O., "Monoclonal Antibodies for Treating Cancer," <i>Annals of Internal Medicine</i> , 111:592-603 (1989).
	C36	Dower, W.J. <i>et al.</i> , "High efficiency transformation of <i>E. coli</i> by high voltage electroporation," <i>Nucl. Acids Res.</i> , 16(13):6127-6145 (1988).
	C37	Eckert, K.A. <i>et al.</i> , "High fidelity DNA synthesis by the <i>Thermus aquaticus</i> DNA polymerase," <i>Nucl. Acids Res.</i> , 18(13):3739-3744 (1990).
	C38	Eisen, H.N., "Determination of Antibody Affinity For Haptens and Antigens by Means of Fluorescence Quenching," <i>Meth. Med. Res.</i> , 10:115-121 (1964).
	C39	Evan, G.I. <i>et al.</i> , "Isolation of Monoclonal Antibodies Specific for Human c-myc Proto-Oncogene Product," <i>Mol. Cell. Biol.</i> , 5(12):3610-3616 (December, 1985).
	C40	Fikes, J.D. <i>et al.</i> , "Maturation of <i>Escherichia coli</i> Maltose-binding Protein by Signal Peptidase I <i>in Vivo</i> ," <i>J. Biological Chemistry</i> , 265(6):3417-3423 (1990).
	C41	Galfrè, G. <i>et al.</i> , "Preparation of Monoclonal Antibodies: Strategies and Procedures," <i>Methods Enzymology</i> , 73:3-46 (1981).
	C42	Gherardi, E. <i>et al.</i> , "A single-step procedure for cloning and selection of antibody-secreting hybridomas," <i>J. Immunol. Methods</i> , 126:61-68 (1990).

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	C43	Glockshuber, R. <i>et al.</i> , "The Disulfide Bonds in Antibody Variable Domains: Effects on Stability, Folding in Vitro, and Functional Expression in Escherichia coli," <i>Biochemistry</i> , 31:1270-1279 (1992).
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	C47	Grant, R.A. <i>et al.</i> , "Structure of the Filamentous Bacteriophage f1," <i>J. Biol. Chem.</i> , 256(1):539-546 (January, 1981).
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	C51	Harris, W.J. <i>et al.</i> , "Therapeutic antibodies - the coming of age," <i>Trends Biotechnology</i> , 11:42-44 (February, 1993).
	C52	Hird, V. <i>et al.</i> , "Immunotherapy with Monoclonal Antibodies," in <i>Genes and Cancer</i> , Edited by D. Carney and K. Sikora, John Wiley & Sons, Ltd., pp.183-189 (1990).
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	C58	Izard, J.W. <i>et al.</i> , "Signal peptides: exquisitely designed transport promoters," <i>Molecular Microbiology</i> , 13(5):765-773 (1994).
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	C64	Kim, Y. <i>et al.</i> , "Refinement of Eco RI Endonuclease Crystal Structure: A Revised Protein Chain Tracing," <i>Science</i> , 249:1307-1309 (1990).
	C65	Köhler, G. <i>et al.</i> , "Continuous cultures of fused cells secreting antibody of predefined specificity," <i>Nature</i> , 256:495-497 (August, 1975).
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	C68	Larrick, J.W. <i>et al.</i> , "Rapid Cloning of Rearranged Immunoglobulin Genes from Human Hybridoma Cells Using Mixed Primers and the Polymerase Chain Reaction," <i>Biochem. Biophys. Res. Commun.</i> , 160(3):1250-1255 (May, 1989).

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C73	McCafferty <i>et al.</i> , "Phage Antibodies: Filamentous Phage Displaying Antibody Variable Domains," <i>Nature</i> , 348:552-554 (1990).	
C74	McCracken, S. <i>et al.</i> , "Functional and Structural Properties of Immobilized Subunits of <i>Escherichia coli</i> Alkaline Phosphatase," <i>J. Biol. Chem.</i> , 255(6):2396-2404 (March, 1980).	
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C77	Munro, S. <i>et al.</i> , "An Hsp70-like Protein in the ER: Identity with the 78 kd Glucose-Regulated Protein and Immunoglobulin Heavy Chain Binding Protein," <i>Cell</i> , 46:291-300 (July, 1986).	
C78	Nagai, K. <i>et al.</i> , "Synthesis and Sequence-Specific Proteolysis of Hybrid Proteins Produced in <i>Escherichia coli</i> ," <i>Methods Enzymology</i> , 153:461-481 (1987).	
C79	Neuberger, M.S. <i>et al.</i> , "Recombinant antibodies possessing novel effector functions," <i>Nature</i> , 312:604-608 (1984).	
C80	Newman, A.K. <i>et al.</i> , "DNA Sequences of Structural Genes for <i>Eco</i> RI DNA Restriction and Modification Enzymes," <i>J. Biological Chemistry</i> , 256(5):2131-2139 (1981).	
C81	Ohlson, S. <i>et al.</i> , "Novel Approach to Affinity Chromatography Using "Weak" Monoclonal Antibodies," <i>Anal. Biochem.</i> , 169:204-208 (1988).	

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	C82	Oliver, D.B. <i>et al.</i> , "Periplasm and Protein Secretion," in <i>Escherichia coli and Salmonella typhimurium: cellular and molecular biology</i> , F.C. Neidhart (ed.), American Society for Microbiology, Washington, pp. 56-69.
	C83	Orlandi, R. <i>et al.</i> , "Cloning immunoglobulin variable domains for expression by the polymerase chain reaction," <i>Proc. Natl. Acad. Sci., USA</i> , 86:3833-3837 (May, 1989).
	C84	Osband, M.E. <i>et al.</i> , "Problems in the investigational study and clinical use of cancer immunotherapy," <i>Immunology Today</i> , 11(6):193-195 (1990).
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	C86	Parnley, S.F. <i>et al.</i> , "Filamentous Fusion Phage Cloning Vectors for the Study of Epitopes and Design of Vaccines," <i>Adv. Exp. Med. Biol.</i> , 251:215-218 (1989).
	C87	Perelson, A.S., "Immune Network Theory," <i>Immunol. Reviews</i> , 110:5-36 (1989).
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	C89	Rasched, I. <i>et al.</i> , "Ff Coliphages: Structural and Functional Relationships," <i>Microbiological Reviews</i> , 50(4):401-427 (1986).
	C90	Riechmann, L. <i>et al.</i> , "Reshaping human antibodies for therapy," <i>Nature</i> , 332:323-327 (March, 1988).
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	C93	Sambrook <i>et al.</i> , <i>Molecular Cloning: A Laboratory Manual</i> , 4.13-4.14, 4.17-4.19, 4.46 and A.12 (1989).
	C94	Sastry, L. <i>et al.</i> , "Cloning of the immunological repertoire in <i>Escherichia coli</i> for generation of monoclonal catalytic antibodies: Construction of a heavy chain variable region-specific cDNA library," <i>Proc. Natl. Acad. Sci., USA</i> , 86:5728-5732 (August, 1989).
	C95	Schaaper, R.M. <i>et al.</i> , " <i>Escherichia coli</i> mutT Mutator Effect during <i>in Vitro</i> DNA Synthesis," <i>J. Biol. Chem.</i> , 262(34):16267-16270 (December, 1987).

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Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 05569.0004.DVUS11	Serial No. New Application
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant McCafferty, J. et al.	
		Filing Date 3-18-04	Group

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
	C96	Schapper, R.M., "Mechanisms of mutagenesis in the <i>Escherichia coli</i> mutator mutD5: Role of DNA mismatch repair," <i>Proc. Natl. Acad. Sci., USA</i> , 85:8126-8130 (November, 1988).
	C97	Schneider, G. <i>et al.</i> "Analysis of Cleavage-Site Patterns in Protein Precursor Sequences with a Perceptron-Type Neural Network," <i>Biochemical and Biophysical Research Communications</i> , 194(2):951-959 (1993).
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Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	App. Docket No 05569.0004.DVUS11	Serial No. New Application
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant McCafferty, J. et al.	
		Filing Date 3-18-04	Group

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
	C109	Vieira, J. et al., "Production of Single-Stranded Plasmid DNA," <i>Methods Enzymol.</i> 153:3-11 (1987).
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	C111	Waldmann, T.A., "Monoclonal Antibodies in Diagnosis and Therapy," <i>Science</i> , 252:1657-1662 (June, 1991).
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	C113	Ward, E.S. et al., "Binding activities of a repertoire of single immunoglobulin variable domains secreted from <i>Escherichia coli</i> ," <i>Nature</i> , 341:544-546 (October, 1989).
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	C116	Williams, A.F. et al., "The Immunoglobulin Superfamily - Domains for Cell Surface Recognition ^{1,2} ," <i>Ann. Rev. Immunol.</i> , 6:381-405 (1988).
	C117	Winter et al., "Man-made Antibodies," <i>Nature</i> , 349(6307):293-299 (January, 1991).
	C118	Yanisch-Perron, C. et al., "Improved M13 phage cloning vectors and host strains: nucleotide sequences of the M13mp18 and pUC19 vectors," <i>Gene</i> , 33:103-119 (1985).
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										Applicant McCafferty et al.											
										Filing Date March 18, 2004				Group Art Unit							
U. S. PATENT DOCUMENTS																					
EXAMINER INITIAL		DOCUMENT NUMBER								DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROP.							
	A1	6	3	3	1	4	1	5		Cabilly et al.	435	69.6	6/10/88								
	A2	07/	2	4	0	1	6	0	3/22/90	Ladner application											
		5	4	2	7	9	0	8	06/95	Dower et al.	435	5									
		6	1	7	2	1	9	7	01/01	McCafferty et al.	530/387	3									
		5	9	6	9	1	0	8	10/99	McCafferty et al.	530/387	3									
FOREIGN PATENT DOCUMENTS																					
		DOCUMENT NUMBER								DATE	COUNTRY	CLASS	SUB CLASS	Translation							
														Yes	No						
	B1	WO 88/01649								3/10/88	PCT										
	B2	GB9022845.3								10/19/90	Great Britain										
	B3	GB9024503.6 patent application								11/12/90	Great Britain										
	B4	GB 9104744.9 patent application								3/6/91	Great Britain										
	B5	EP-A-0 368 684								5/16/90	Great Britain										
	B6	GB9015198.6 priority document								7/10/90	Great Britain										
	B7	GB 9022845.3 priority document								10/19/90	Great Britain										
	B8	GB 9104744.9 priority document								3/6/91	Great Britain										
	B9	GB9110549.4 priority document								5/15/91	Great Britain										
	B10	EP-B-0 349 578 B1								11/30/94	Great Britain										
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)																					
	C1	First Amended Complaint, Filed March 8, 2002 - Morphosys AG v. Cambridge Antibody Technology Limited, Case No. 1:00-CV-00146 (24 pages) (U.S. District Court, District of Columbia)(signed by John S. Skilton, Attorney for Plaintiff.)																			
	C2	Cambridge Antibody Technology Limited's Answer to First Amended Complaint, Filed March 22, 2002 - Morphosys AG v. Cambridge Antibody Technology Limited, Case No. 1:00-CV-00146 (30 pages) (U.S. District Court, District of Columbia)(signed by Brian H. Corcoran, Attorney for Defendant).																			
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		Applicant McCafferty et al.	
		Filing Date March 18, 2004	Group Art Unit
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
C3	Il'ichev, A.A., et al., "M13 Filamentous Bacteriophage in Protein Engineering", Molekulyarnaya Biologiya, Vol. 24, No. 2, pp. 530-535, (March-April 1990).		
C4	Iliychev, A.A., et al., "M13 Filamentous Bacteriophage for Protein Engineering", Molekulyarnaya Biologiya, Vol. 24, No. 2, pp. 530-535, (March-April 1990). (In Russian with Translated Abstract)		
C5	Redacted Agreement Between Medical Research Council and Cambridge Antibody Technology Limited and Cambridge Antibody Technology Group plc, made 01 January 1997		
C6	Deposition Transcript of David W. Clough, taken April 19, 2002 (Morphosys AG v. Cambridge Antibody Technology Limited, U.S. District Court, Northern District of Illinois, Eastern Division).		
C7	E.I. du Pont de Nemours v. Cetus Corp., 19 USPQ2d 1174, (DC N.Cal. 1990).		
C8	OddzOn Products Inc. v. Just Toys Inc., 43 USPQ2d 1641 (CAFC 1997).		
C9	Deposition Transcript of George P. Smith, Ph.D., taken 14 May 2002, Morphosys AG v. Cambridge Antibody Technology Limited, Case No. 1:00-CV-00146 (30 pages) (U.S. District Court, District of Columbia.)		
C11	Deposition Transcript of Dr. David Chiswell, taken 29 April 2002; Morphosys AG v. Cambridge Antibody Technology Limited, Case No. 1:00-CV-00146 (30 pages) (U.S. District Court, District of Columbia.)		
C12	Deposition Transcript of Dr. Gregory Paul Winter, taken April 30, 2002; Morphosys AG v. Cambridge Antibody Technology Limited, Case No. 1:00-CV-00146 (30 pages) (U.S. District Court, District of Columbia.)		
C13	Vol. I - Deposition Transcript of Sean Malcolm Walton, taken 01 May 2002, Morphosys AG v. Cambridge Antibody Technology Limited, Case No. 1:00-CV-00146 (30 pages) (U.S. District Court, District of Columbia.)		
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		Applicant McCafferty <i>et al.</i>	
		Filing Date March 18, 2004	Group Art Unit
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
C14	Vol. II - Deposition Transcript of Sean Malcolm Walton, taken 02 May 2002, Morphosys AG v. Cambridge Antibody Technology Limited, Case No. 1:00-CV-00146 (30 pages) (U.S. District Court, District of Columbia.)		
C15	Chiswell memo, dated 30 July 1990, transmitting a copy of the Collaborative Agreement between Cambridge Antibody Technology and The Medical Research Council, dated July 27, 1995.		
C16	Declaration of George P. Smith, Ph.D., Under 37 C.F.R. § 1.132, executed 30 June 1995 (submitted during the prosecution of U.S. Application No. 08/322,352).		
C17	Declaration of Brian K. Kay, Ph.D., executed 28 June 1998, (submitted during the prosecution of European Appln. No. 91913039.3)		
C18	Abstract of George P. Smith, Grant No. 1R01GM41478-01A1, Project Start Date: July 1, 1989, Dept. of Health & Human Services.		
C19	Smith Grant Application, entitled: "Filamentous Phage Physiology", dated November 1, 1988		
C20	Administration Agreement between Cambridge Antibody Technology Ltd. and Medical Research Council, dated 01 August 1991 (Redacted).		
C21	Fax from John McCafferty (of Cambridge Antibody Technology Limited) to Sean Walton (of Mewburn Ellis) regarding the Smith grant application.		
C22	E-mail message from John McCafferty (of Cambridge Antibody Technology Limited) to Brian Kay regarding the Smith grant application		
C23	Letter to Craig Panner (of the Academic Press) from John McCafferty (Cambridge Antibody Technology Limited) regarding the Smith grant application		
C23A	Fax to John McCafferty, Ph.D. (of Cambridge Antibody Technology Limited) from Craig Panner (of Academic Press) dated June 10, 1996.		
C24	Smith, G. P., "1988 - A Year of Discovery", <i>Phage Display of Peptides and Proteins</i> , Academic Press, Inc. (1996), pp. xvii-xix.		
C25	Northern Telecom Inc. v. Datapoint Corp., 15 USPQ 1321.. (CAFC 1990).		
C26	Letter of Dr. Smith Re: NIH grant proposals, Dated June 27, 1997		
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		Applicant McCafferty <i>et al.</i>	
		Filing Date March 18, 2004	Group Art Unit
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
C27	Barbas and Lerner "Combinatorial Immunoglobulin Libraries on the surface of phage (Phabs): rapid selection of anti-specific fabs." Methods: a companion to methods in Enzymology Vol. 2 (2): 119-124 (1991).		
C28	Interlocutory Decision in Opposition Proceedings to the European Patent EP-B-0589877 dated April 15, 2002 (reference number SMW/CP9503921)		
C29	Notice of Appeal to the European Patent EP-B-0589877 from Dyax Corp., filed June 17, 2002		
C30	Communication from EPO on Notice of Appeal filed by Dyax, issued October 21, 2002		
C31	Notice of Appeal to the European Patent EP-B-0589877 from BioInvent Therapeutic AB, filed June 14, 2002		
C32	Appeal No. T0639/02-334 from BioInvent Therapeutic AB to the European Patent EP-B-0589877, filed, August 22, 002		
C33	Notice of Appeal to the European Patent EP-B-0589877 from MorphoSys AG filed June 20 2002 and Grounds Of the Appeal filed August 22, 2002		
C34	Notice of Appeal filed June 24, 2002 and Grounds of Appeal filed August 22, 2002 from Cambridge Antibody Technology Limited against the Decision of the Opposition Division		
C35	Notice of Opposition to the European Patent EP-B-0589877 from BioInvent International AB, filed October 24 2002		
C36	Document D80 in Appeal No. T0639/02-334: HHS' Freedom of Information Act (FOIA) regulations: table of contents, 5.1, 5.2, 5.3, 5.5, 5.21, 5.22, 5.24, 5.31, 5.32, 5.33, 5.34, 5.35, 5.51, 5.61 and 5.65		
C37	Document D81 in Appeal No. T0639/02-334: Smith Declaration		
C38	Document D82 in Appeal No. T0639/02-334: Copy of Grant Application GM 41478 and renewal applications supplied by the DHH		
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		Filing Date March 18, 2004	Group Art Unit
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
C39	Document D83 in Appeal No. T0639/02-334: Letter dated 26 August 1999 from Cambridge Antibody Technology Ltd in opposition proceedings against EP 0 527 839		
C40	Document D85 in Appeal No. T0639/02-334: Proprietor's letter of 12 November 1997 and amended claims		
C41	Document D86 in Appeal No. T0639/02-334: EP 0774 511 A1		
C42	Document D87 in Appeal No. T0639/02-334: Proprietor's letter of 15 November 2000		
C43	Document D88 in Appeal No. T0639/02-334: Grounds of Appeal dated 22 August 2002 from present opponent opposition proceedings against EP 0589 877		
C44	Document D89 in Appeal No. T0639/02-334: OD's Written Interlocutory Decision in opposition proceedings against EP 0 589 877		
C45	Document D90 in Appeal No. T0639/02-334: Marvin & Hohn (1969). Bacteriological Rev 33(2), 172-209		
C46	Document D91 in Appeal No. T0639/02-334: Better et al. (1988). Science 240, 1041-1043		
C47	Document D92 in Appeal No. T0639/02-334: Sambrook & Russel (2001). Molecular cloning: a laboratory manual 3rd Edition, Cold Spring Harbor Press; particular pages 18.115 to 18.122 "Filamentous phage display"		
C48	Notice of Opposition to the European Patent EP-B-0589877 from Crucell Holland B.V, filed October 30 2002		
C49	Document D13: Communication of the European Office of 28 June 2001		
C50	Document D17: Vieira and Messing (1987), Methods Enzymol. 153, 3-11		
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		Filing Date March 18, 2004	Group Art Unit
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
C51	Document D27: Details of Smith Grant application and second and third year renewals thereof as provided by the DHHS in response to a Freedom to Information Act (FOIA) request		
C52	Notice of Opposition to the European Patent EP-B-0589877 from Dyax Corp.		
C53	Document D1: EPO register print-out for the patent application with file history information		
C54	Document D3: Claims filed with the divisional application		
C55	Document D7: Pluckthun and Skerra, "Expression of functional antibody Fv and Fab fragments in Escherichia coli," Methods in Enzymology, Vol. 178 (1989), pages 497-515		
C56	Document D8: Hoogenboom et al., "Multi-subunit proteins on the surface of filamentous phage: methodology for displaying antibody (Fab) heavy and light chains," Nucleic Acids Research, Vol 19, No. 15 (1991), pages 4133-4137.		
C57	Notice of Opposition to the European Patent EP-B-0589877 from MorphoSys, filed October 30 2002		
C58	Document D1: Genentech, US Patent Application 07/621,667, priority document to EP 92902109.5		
C59	Opposition to European patent EP-B-0589877, cited opposition document D2: Nelson et al. "Filamentous phage DNA cloning vectors: a noninfective mutant with a nonpolar deletion in gene III", Virology 108: 338-350 (1981)		
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C61	Opposition to European patent EP-B-0589877, cited opposition document D5: Bullock et al. "XL1-blue: a high efficiency plasmid transforming recA Escherichia coli strain with beta-galactosidase selection", Bio Techniques 5: 376-378 (1987)		
C62	Opposition to European patent EP-B-0589877, cited opposition document D6: Schnee et al. "Construction and expression of a recombinant antibody-targeted plasminogen activator", Proc. Natl. Acad. Sci. USA 84:6904-6908 (1987)		
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		Filing Date March 18, 2004	Group Art Unit
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
C63	Opposition to European patent EP-B-0589877, cited opposition document D9: De La Cruz et al. "Immunogenicity and epitope mapping of foreign sequences via genetically engineered filamentous phage", <i>J. Bio. Chem.</i> 263: 4318-4322 (1988)		
C64	Opposition to European patent EP-B-0589877, cited opposition document D15: Parmley and Smith "Filamentous fusion phage cloning vectors for the study of epitopes and design of vaccines", <i>Adv. Exp. Med. Biol.</i> 251: 215-218 (1989)		
C65	Opposition to European patent EP-B-0589877, cited opposition document D18: Chaudhary et al. "A recombinant immunotoxin consisting of two antibody variable domains fused to Pseudomonas exotoxin", <i>Nature</i> 339: 394-397 (1989)		
C66	Opposition to European patent EP-B-0589877, cited opposition document D23: US 517 659 "Affymax priority document", entitled "Recombinant Library Screening Methods", priority document filed 1 May 1990 for EP-A-0 527 839 (Article 54(3) EPC)		
C67	Opposition to European patent EP-B-0589877, cited opposition document D26: Scott and Smith "Searching for peptide ligands with an epitope library", <i>Science</i> 249: 386-389 (1990)		
C68	Opposition to European patent EP-B-0589877, cited opposition document D27: Devlin et al. "Random peptide libraries: a source of specific protein binding molecules", <i>Science</i> 249: 404-405 (1990)		
C69	Opposition to European patent EP-B-0589877, cited opposition document D37: Markland et al. "Design, construction and function of a multicopy display vector using fusions to the major coat protein of bacteriophage M13", <i>Gene</i> 109: 13-19 (1991)		
C70	Opposition to European patent EP-B-0589877, cited opposition document D38: Roberts et al. "Directed evolution of a protein: selection of potent neutrophil elastase inhibitors displayed on M13 fusion phage", <i>Proc. Natl. Acad. Sci. USA</i> 89: 2429-2433 (1992)		
C71	Opposition to European patent EP-B-0589877, cited opposition document D39: Glockshuber et al. "The disulfide bonds in antibody variable domains: effects on stability, folding in vitro, and functional expression in <i>Escherichia coli</i> ", <i>Biochemistry</i> 31: 1270-1279 (1992)		
C72	Opposition to European patent EP-B-0589877, cited opposition document D41: Kay et al. "Phage display of peptides and proteins", <i>A laboratory Manual</i> (1996) (Cover page and Foreword enclosed)		
C73	Opposition to European patent EP-B-0589877, cited opposition document D42: Proba et al. "A natural antibody missing a cysteine in V _H : consequences for thermodynamic stability and folding", <i>J. Mol. Biol.</i> 265: 161-172 (1997)		
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
C74	Opposition to European patent EP-B-0589877, cited opposition document D43: Proba <i>et al.</i> "Antibody scFv fragments without disulfide bonds made by molecular evolution", <i>J. Mol. Biol.</i> 275: 245-253 (1998)		
C75	Opposition to European patent EP-B-0589877, cited opposition document D44: Letter of 18 November 1992 to EPO from Kilburn Strode in prosecution of EP-B-0 349 578		
C76	Opposition to European patent EP-B-0589877, cited opposition document D45: Page 3 of EPO letter of 19 October 1993 addressed to Plougmann, Ole (c/o Plougmann Vingtoft A/S) in prosecution of EP-B-0 768 377		
C77	Opposition to European patent EP-B-0589877, cited opposition document D46: Letter of 22 September 1994 to EPO from Plougmann & Vingtoft in prosecution of EP-B-0 768 377		
C78	Opposition to European patent EP-B-0589877, cited opposition document D47: Extract from OD Decision in opposition proceedings against EP-B-0 201 184, (1995)		
C79	Opposition to European patent EP-B-0589877, cited opposition document D48: Letter of 14 February 1996 to EPO from Hepworth, Lawrence, Bryer & Bizley in prosecution of EP-A-0 527 839, 1996		
C80	Opposition to European patent EP-B-0589877, cited opposition document D49: the Boards of Appeal of the European Patent Office decision of 8 May 1996, case number T694/92 - 3.3.4		
C81	Opposition to European patent EP-B-0589877, cited opposition document D50: Extract from opposition proceeding against EP-B-0 349 578 (1996)		
C82	Opposition to European patent EP-B-0589877, cited opposition document D51: Extract from OD Decision in proceedings against EP-B-0 349 578 (1998)		
C83	Opposition to European patent EP-B-0589877, cited opposition document D53: Declaration of professor sir Aaron Klug, Ph.D. with exhibits, (23 June 1998)		
C84	Opposition to European patent EP-B-0589877, cited opposition document D54: preprint of paper by Scott and Smith submitted to Science		
C85	Opposition to European patent EP-B-0589877, cited opposition document D55: Smith grant application		
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		Applicant McCafferty <i>et al.</i>	
		Filing Date March 18, 2004	Group Art Unit
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
C86	Opposition to European patent EP-B-0589877, late filed document D56: claim for infringement of 24 September 1998, from Cambridge Antibody Technology Limited to EPO		
C87	Opposition to European patent EP-B-0589877, late filed document D58: McConnell <i>et al.</i> "Constrained peptide libraries as a tool for finding mimotopes", <i>Gene</i> 151: 115-118 (1994).		
C88	Opposition to European patent EP-B-0589877, late filed document D59: two chapters of "Lambda II" (eds. Hendrix <i>et al.</i>) Cold Spring Harbour Laboratory, Cold Spring Harbour, New York, 1983: "A Beginner's Guide to Lambda Biology" (Arber) (pp. 381-395) and "Tail Assembly and Injection" (Katsura) (pp. 331-346).		
C89	Opposition to European patent EP-B-0589877, late filed document D60: Parmley & Smith "Filamentous fusion phage cloning vectors for the study of epitopes and design vaccines", <i>Adv. Exp. Med. Biol.</i> 251: 251-8 (1989).		
C90	Opposition to European patent EP-B-0589877, late filed document D63: Declaration of William D. Huse, MD, Ph.D. (17 August 1999)		
C91	Opposition to European patent EP-B-0589877, late filed document D66: Crissman & Smith, "Gene-III protein of filamentous phages: evidence for a carboxyl-terminal domain with a role in morphogenesis", <i>Virology</i> 132: 445-455 (1994).		
C92	Opposition to European patent EP-B-0589877, late filed document D67: Declaration of Dr. Viia Valge-Archer (3 May, 2000)		
C93	Opposition to European patent EP-B-0589877, late filed document D68: Declaration of Dr. Hiroshi Ueda (3 May, 2000)		
C94	Opposition to European patent EP-B-0589877, late filed document D69: First Declaration of Dr. Rachel B. Kent (4 February, 2000).		
C95	Opposition to European patent EP-B-0589877, late filed document D71: letter of patentees filed at USPTO on 16 July 1996.		
C96	Opposition to European patent EP-B-0589877, late filed document D72: letter of patentees filed at USPTO on 6 March 1997.		
C97	Opposition to European patent EP-B-0589877, late filed document D73: Opposition by CAT against EP-B-0 564 531.		
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		Applicant McCafferty <i>et al.</i>	
		Filing Date March 18, 2004	Group Art Unit
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	C98	Opposition to European patent EP-B-0589877, late filed document D74: Decision of EPOD on EP-B-0 201 184.	
	C99	Opposition to European patent EP-B-0589877, late filed document D75: Declaration of Prof. Andreas Plückhuhn (3 May, 2000).	
	C100	Opposition to European patent EP-B-0589877, late filed document D76: Notice of grant awarded to Smith grant application.	
	C101	Opposition to European patent EP-B-0589877, late filed document D77: Endemann and Model "Location of filamentous phage minor coat proteins in phage and in infected cells", <i>J. Mol. Biol.</i> 250: 496-506 (1995). The document was objected to by patentees.	
	C102	Opposition to European patent EP-B-0589877, late filed document D79: Extract from MorphoSys website.	
	C103	Opposition to European patent EP-B-0589877, late filed document D80: Written Decision dated 26 May 2000 to revoke EP-B-0436597.	
	C104	Opposition to European patent EP-B-0589877, late filed document D81: 2nd Declaration of Dr. Viia Valge-Archer (31 May, 2000).	
	C105		
	C106		
	C107		
	C108		
	C109		
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